



International Bureau



- I REBUR BUNDARU IN BURNE HEN BURN BURN BURN BURN BURN BURN BURNE BURNE BURN BURN BURN BURN BURN BURN BER HAN

(43) International Publication Date 24 March 2005 (24.03.2005)

PCT

(10) International Publication Number WO 2005/026684 A3

- (51) International Patent Classification⁷: C08G 75/00, C12Q 1/00, C23F 1/00, G01N 23/00, G01R 31/26, G21K 7/00, H01B 1/02, 1/08, H01L 21/66
- (21) International Application Number:

PCT/US2004/025332

- (22) International Filing Date: 6 August 2004 (06.08.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/492,789

6 August 2003 (06.08.2003) US

- (71) Applicant (for all designated States except US): IMAGO SCIENTIFIC INSTRUMENTS CORPORATION [US/US]; Suite 100, 6300 Enterprise Lane, Madison, WI 53719 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): GOODMAN, Steven, L. [US/US]; 13 Mark Twain Street, Madison, WI 53705 (US). KELLY, Thomas, F. [US/US]; 2021 Chamberlain Avenue, Madison, WI 53705 (US). KRE-MER, John, J. [US/US]; 5630 Cary Glen Blvd., Cary, NC 27519-7168 (US).
- (74) Agents: LEONE, Jos., T. et al.; DeWitt Ross & Stevens S.C., Suite 401, 8000 Excelsior Drive, Madison, WI 53717-1914 (US).

- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- (88) Date of publication of the international search report: 13 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD TO DETERMINE 3-D ELEMENTAL COMPOSITION AND STRUCTURE OF BIOLOGICAL AND ORGANIC MATERIALS VIA ATOM PROBE MICROSCOPY

(57) Abstract: Disclosed are methods to prepare a specimen for microanalysis, the specimens so prepared, and methods to analyze the specimens by atom probe microscopy. The specimens are prepared by embedding a specimen within an electrically conductive matrix to yield an embedded specimen; and then forming regions on the embedded specimen into shapes suitable for microanalysis by an atom probe.